

**WHAT IS CLAIMED IS:**

1           1.       A thin film transistor array panel comprising:  
2           a substrate;  
3           a gate line formed on the substrate and including a gate electrode;  
4           a gate insulating layer formed on the gate line;  
5           a semiconductor layer formed on the gate insulating layer;  
6           a data line formed at least in part on the semiconductor layer;  
7           a drain electrode formed on the semiconductor layer at least in part and separated from  
8   the data line;  
9           a first passivation layer formed on the data line and the drain electrode;  
10          a first protrusion formed on the first passivation layer and disposed opposite the data line;  
11   and  
12          a pixel electrode formed on the first passivation layer and connected to the drain  
13   electrode.

1           2.       The thin film transistor array panel of claim 1, wherein the pixel electrode has a  
2   cutout.

1           3.       The thin film transistor array panel of claim 2, further comprising a second  
2   protrusion disposed in the cutout.

1           4.       The thin film transistor array panel of claim 2, further comprising a storage  
2   electrode line overlapping the pixel electrode.

1           5.       The thin film transistor array panel of claim 4, wherein the storage electrode line  
2 comprises an expansion overlapping the drain electrode.

1           6.       The thin film transistor array panel of claim 4, wherein the storage electrode line  
2 comprises a branch overlapping the cutout.

1           7.       The thin film transistor array panel of claim 1, wherein the first protrusion is  
2 wider than the data line.

1           8.       The thin film transistor array panel of claim 1, wherein the data line is curved.

1           9.       The thin film transistor array panel of claim 1, further comprising a spacer having  
2 a height larger than the first protrusion and disposed on the same layer as the first protrusion.

1           10.      The thin film transistor array panel of claim 9, wherein the first protrusion and the  
2 spacer comprise organic material.

1           11.      The thin film transistor array panel of claim 1, further comprising a color filter  
2 disposed between the first passivation layer and the first protrusion and the pixel electrode.

1           12.      The thin film transistor array panel of claim 11, further comprising a second  
2 passivation layer formed on the color filter and the first protrusion and the pixel electrode.

1           13.      The thin film transistor array panel of claim 1, wherein the semiconductor layer  
2 has substantially the same planar shape as the data line and the drain electrode.

1        14.     A thin film transistor array panel comprising:  
2        a substrate;  
3        a gate line formed on the substrate and including a gate electrode;  
4        a gate insulating layer formed on the gate line;  
5        a semiconductor layer formed on the gate insulating layer;  
6        a data line formed at least in part on the semiconductor layer;  
7        a drain electrode formed on the semiconductor layer at least in part and separated from  
8        the data line;  
9        a first passivation layer formed on the data line and the drain electrode and having a  
10       contact hole exposing the drain electrode at least in part;  
11       a pixel electrode formed on the first passivation layer and connected to the drain  
12       electrode through the contact hole; and  
13       a protrusion formed on the first passivation layer and disposed in the cutout at least in  
14       part.

1        15.     The thin film transistor array panel of claim 14, further comprising a storage  
2        electrode line overlapping the pixel electrode.

1        16.     The thin film transistor array panel of claim 15, wherein the storage electrode line  
2        comprises an expansion overlapping the drain electrode.

1        17.     The thin film transistor array panel of claim 15, wherein the storage electrode line  
2        comprises a branch overlapping the cutout.

1           18.     The thin film transistor array panel of claim 14, wherein the data line is curved.

1           19.     The thin film transistor array panel of claim 14, further comprising a spacer  
2     having a height larger than the protrusion and disposed on the same layer as the protrusion.

1           20.     The thin film transistor array panel of claim 19, wherein the protrusion and the  
2     spacer comprise organic material.

1           21.     The thin film transistor array panel of claim 14, further comprising a color filter  
2     disposed between the first passivation layer and the protrusion and the pixel electrode.

1           22.     The thin film transistor array panel of claim 21, further comprising a second  
2     passivation layer formed on the color filter and the protrusion and the pixel electrode.

1           23.     The thin film transistor array panel of claim 1, wherein the semiconductor layer  
2     has substantially the same planar shape as the data line and the drain electrode.

1           24.     A liquid crystal display comprising:  
2     a first substrate;  
3     a gate line formed on the first substrate;  
4     a data line intersecting the gate line;  
5     a thin film transistor connected to the gate line and the data line;  
6     a pixel electrode connected to the thin film transistor and having a first cutout;  
7     a second substrate facing the first substrate;

8 a common electrode formed on the second substrate and having a second cutout; and  
9 a first protrusion disposed in at least one of the first and the second cutouts at least in  
10 part.

1 25. The liquid crystal display of claim 24, further comprising:  
2 a light blocking member disposed on one of the first and the second substrates; and  
3 a color filter disposed on one of the first and the second substrates.

1 26. The liquid crystal display of claim 24, further comprising a second protrusion  
2 disposed on the data line.

1 27. The liquid crystal display of claim 24, wherein the first cutout does not overlap  
2 the second cutout.